

**Figure 1.** Illustration of basic photochemical metal organic deposition process steps.

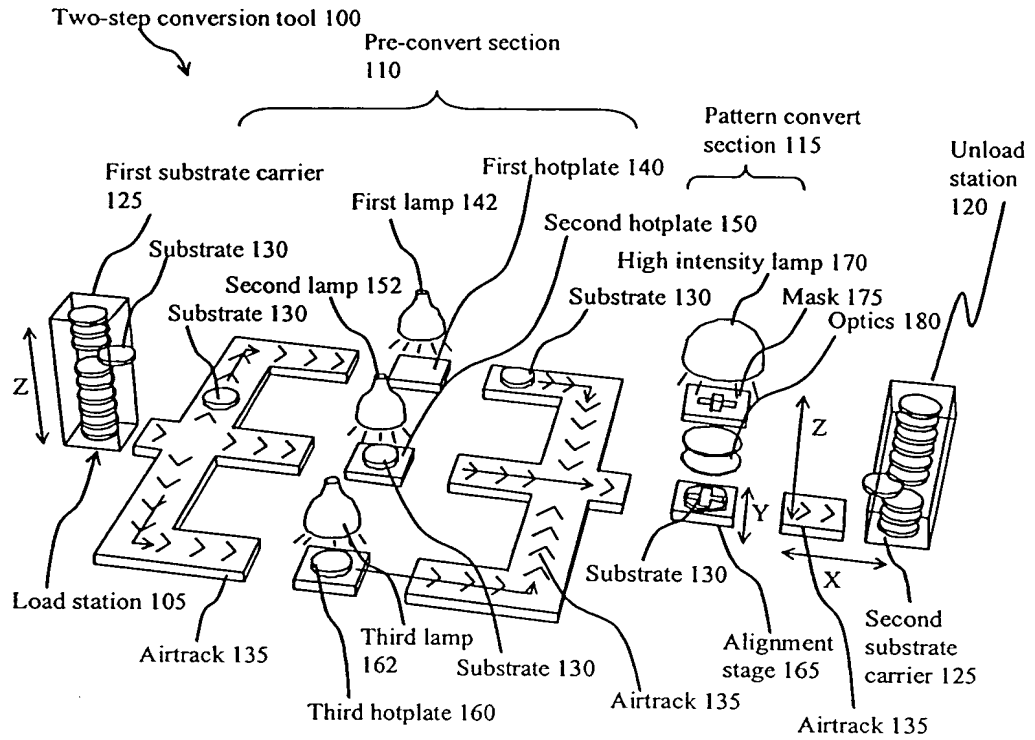


Figure 2. Apparatus for two-step conversion of precursor.

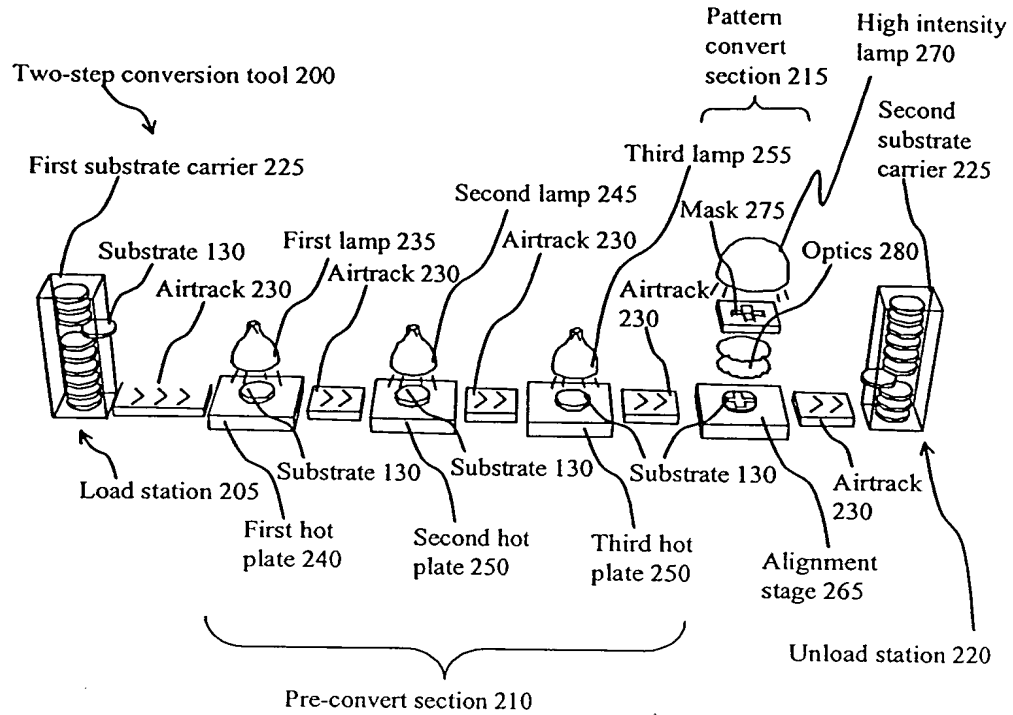
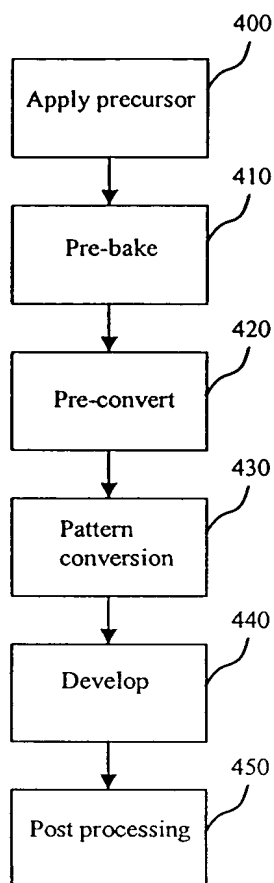


Figure 3. Alternate configuration of apparatus for two-step conversion of precursor.



**Figure 4.** Method of two-step conversion of precursor.

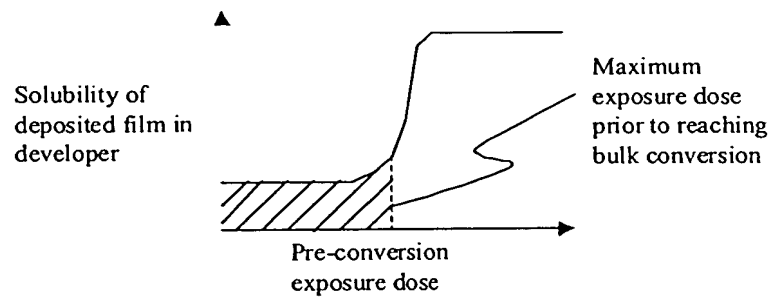
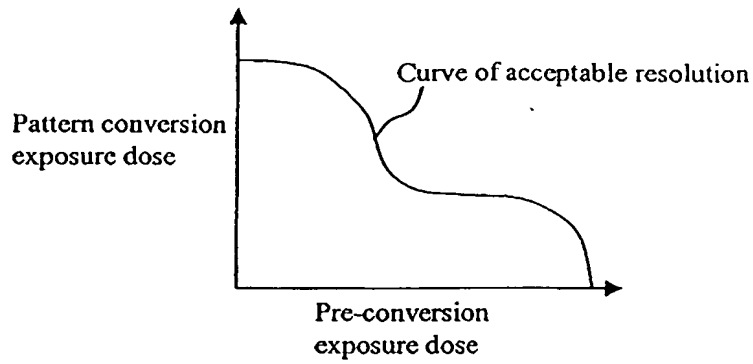
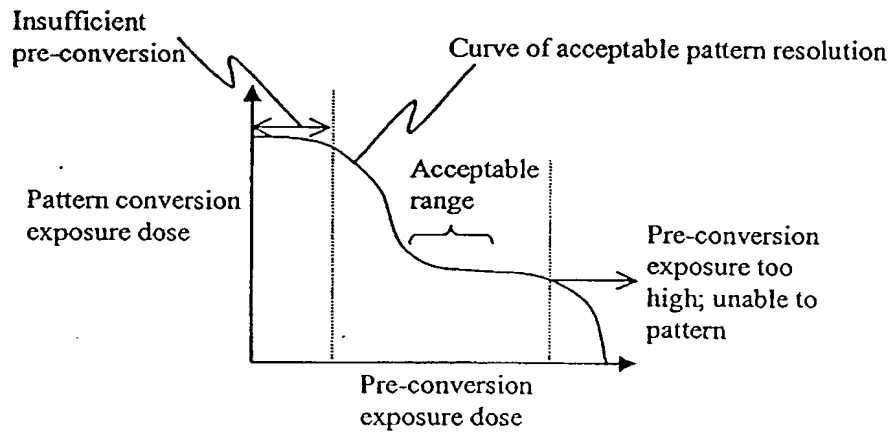


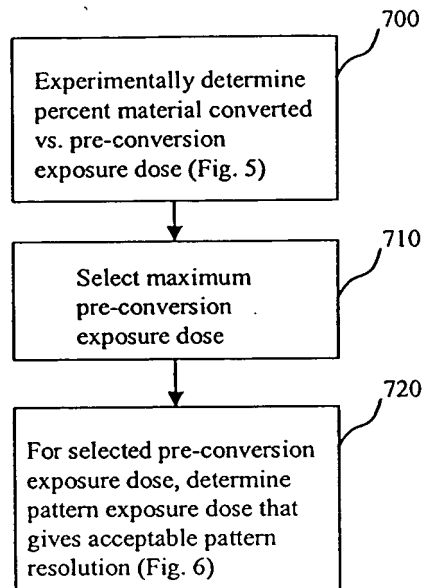
Figure 5: Pre-conversion exposure dose vs. percent precursor converted.



**Figure 6a** Relationship between pre-conversion exposure dose and acceptable pattern exposure dose



**Figure 6b** Ranges on curve of acceptable pattern resolution



**Figure 7.** Method of selecting pre-conversion exposure dose and pattern exposure dose.

FIGURE 8

## ZrO<sub>2</sub> Refractive Index vs. Wavelength

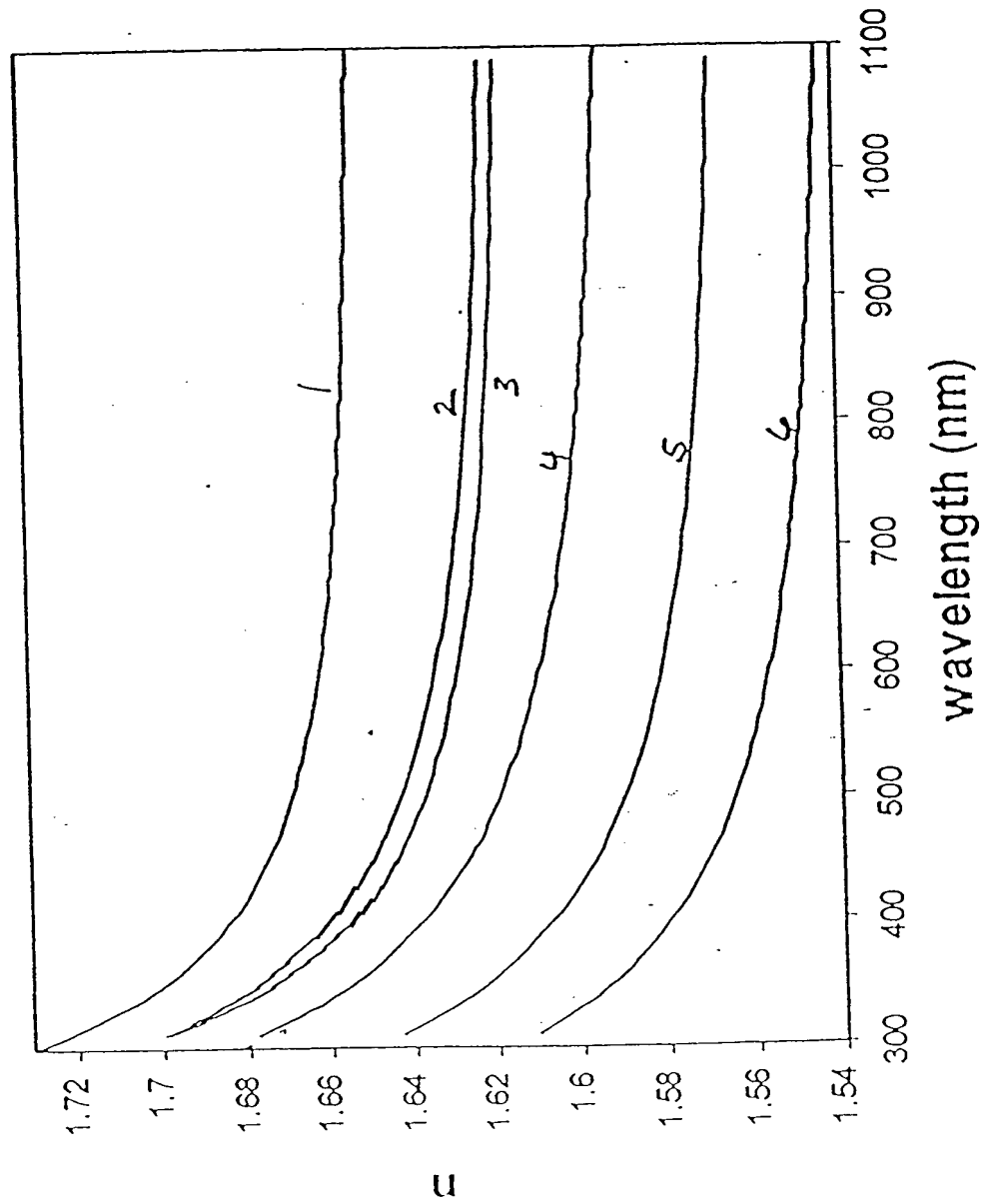




FIGURE 9

Thermal Contrast Curve for BST using IPA

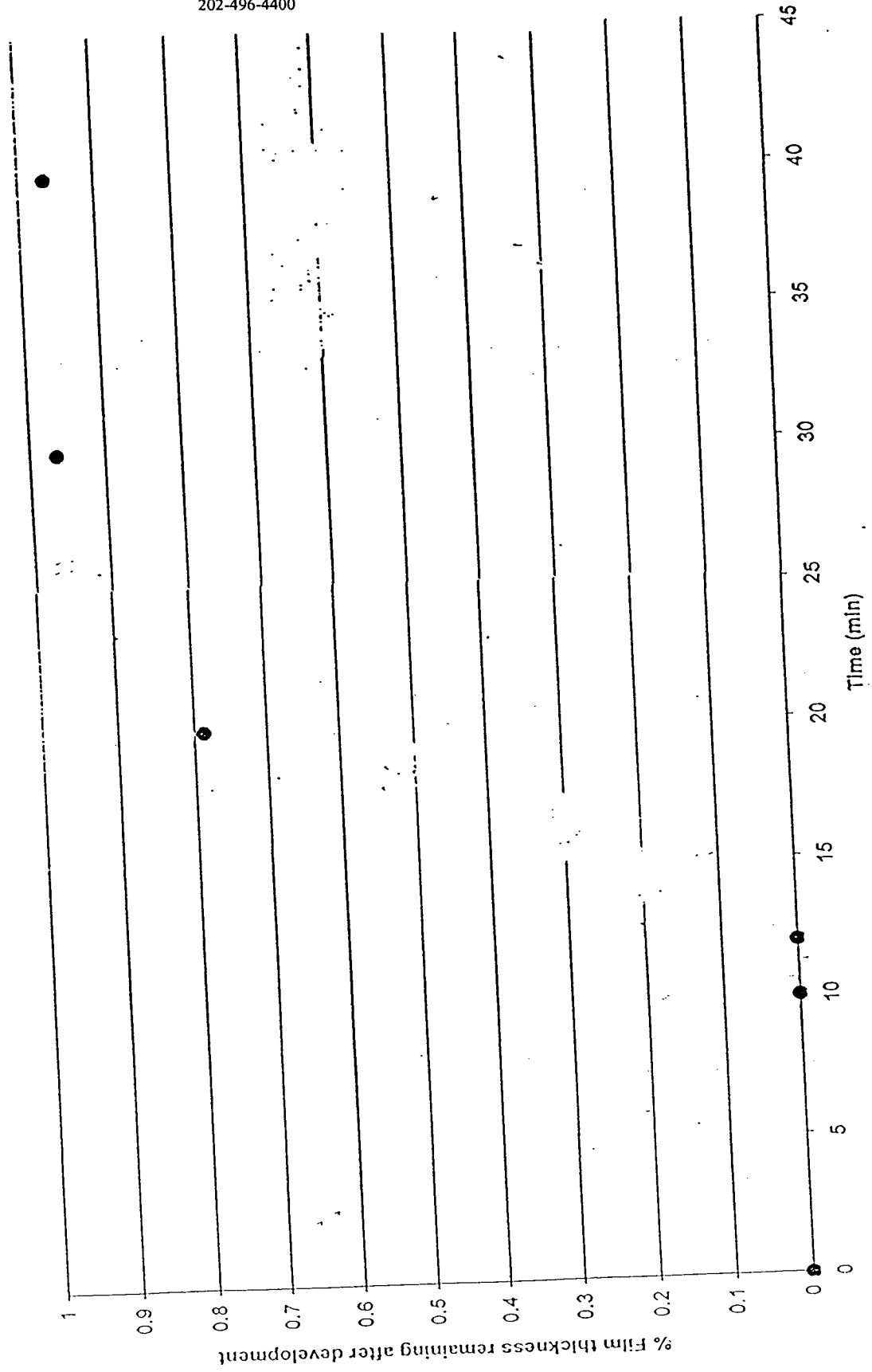


FIGURE 10

Photochemical Contrast

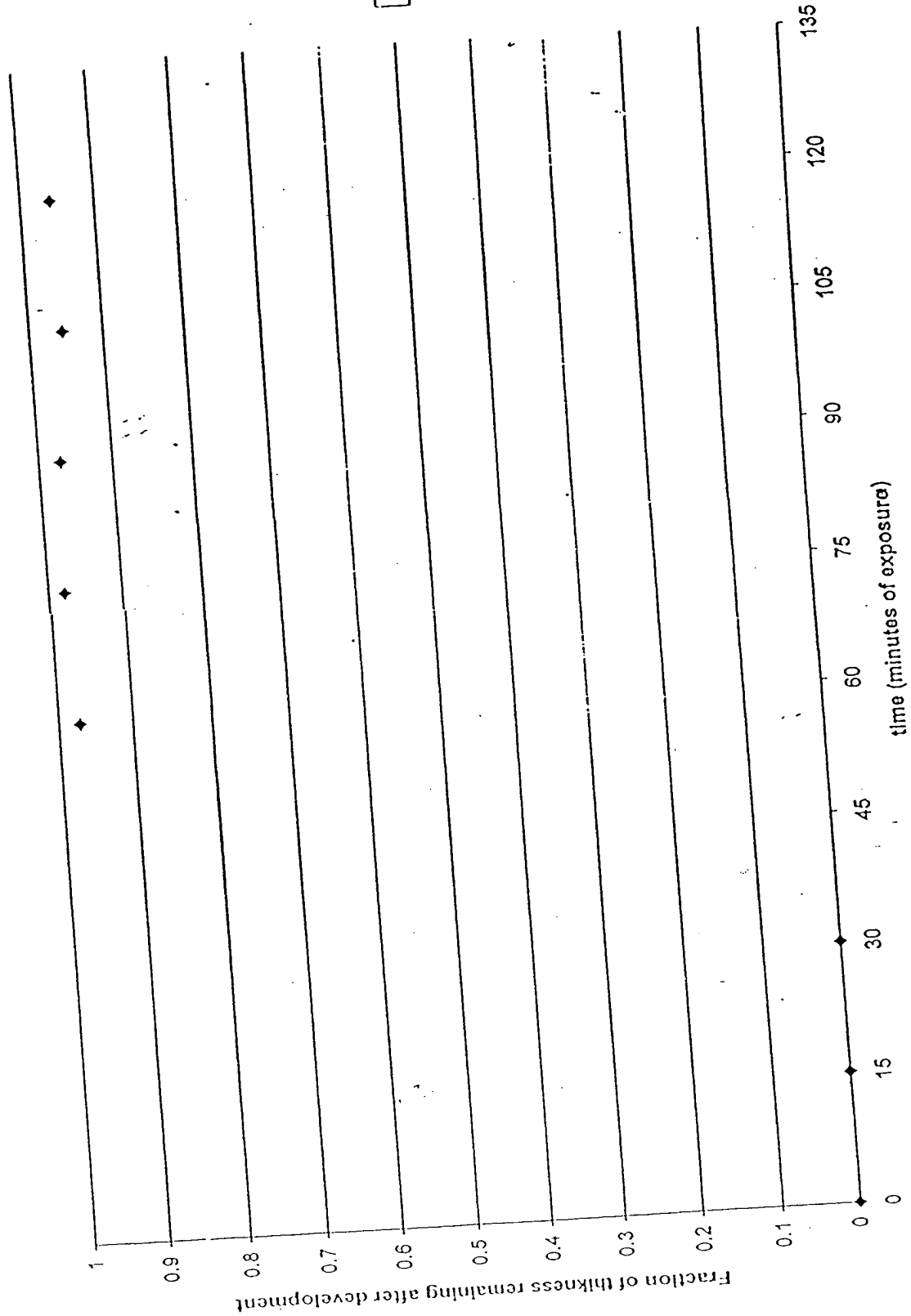


FIGURE 11  
Combined Thermal/Photochemical Contrast

